

# **2009 WATER QUALITY REPORT FOR THE ELK RIDGE WATER SYSTEM PWSID # 0210006**

## **Is my water safe?**

Last year, as in years past, your tap water met all U.S. Environmental Protection Agency (EPA) and state drinking water health standards. The Washington County Department of Water Quality vigilantly safeguards its water supplies and once again we are proud to report that our water system has never violated a maximum contaminant level or any other water quality standard.

## **Do I need to take special precautions?**

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

## **Where does my water come from?**

The Elk Ridge Water System utilizes one well as its water source. The water for this system receives iron removal, manganese removal, pH adjustment and chlorination prior to entering the distribution system.

## **Source water assessment and its availability**

The Maryland Department of the Environment's Water Supply Program (WSP) has conducted a Source Water Assessment for the Elk Ridge water system. The required components of this report as described in Maryland's Source Water Assessment Program (SWAP) are 1) delineation of an area that contributes water to the source, 2) identification of potential sources of contamination, and 3) determination of susceptibility of the water supply to contamination. Recommendations for protecting the drinking water supply conclude this report.

The sources of Elk Ridge's water supply is one well in an unconfined fractured rock aquifer. The Source Water Assessment area was delineated by the WSP using EPA approved methods specifically designed for this source type.

Point sources of contamination were investigated within the assessment area from field inspections, contaminant inventory databases, and previous studies. The Maryland Office of Planning's 2000 digital land use map for Washington County was used to identify non-point sources of contamination. Well information and water quality data were also reviewed. An aerial photograph and maps showing potential contaminants sources and land use within the Source Water Assessment area are included in this report.

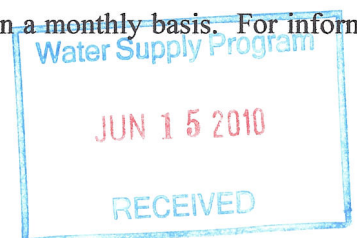
The susceptibility analysis is based on review of the existing water quality data for the Elk Ridge Water System, the presence of potential sources of contamination in the source water assessment area, well integrity, and the inherent vulnerability of the aquifer. The Elk Ridge Water supply may be susceptible to contamination by volatile organic compounds. It was determined that Radon-222, a naturally occurring contaminant, may pose a risk to the Elk Ridge water supply. This water supply is not susceptible to contamination by inorganic compounds, synthetic organic compounds or microbiological contaminants.

## **Why are there contaminants in my drinking water?**

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791).

## **How can I get involved?**

The Washington County Department of Water Quality has an Advisory Board that meets on a monthly basis. For information on attending a meeting, please contact our main office at (240) 313-2600.







# Water Quality Data Table

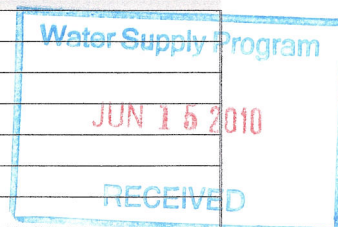
The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently.

<u>Contaminants</u>	<u>MCLG or MRDLG</u>	<u>MCL, TT, or MRDL</u>	<u>Your Water</u>	<u>Range Low High</u>	<u>Sample Date</u>	<u>Violation</u>	<u>Typical Source</u>
<b>Inorganic Contaminants</b>							
Fluoride (ppm)	4	4	0.113	NA	2007	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate [measured as Nitrogen] (ppm)	10	10	0.2	NA	2009	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Sodium (optional) (ppm)		MPL	19.36	NA	2007	No	Erosion of natural deposits; Leaching

<b>Radioactive Contaminants</b>							
Alpha emitters (pCi/L)	0	15	0.8	NA	2009	No	Erosion of natural deposits
Beta/photon emitters (pCi/L)	0	50	1.5	NA	2009	No	Decay of natural and man-made deposits. The EPA considers 50 pCi/L to be the level of concern for Beta particles.
Radium (combined 226/228) (pCi/L)	0	5	0.6	NA	2009	No	Erosion of natural deposits

<u>Contaminants</u>	<u>MCLG</u>	<u>AL</u>	<u>Your Water</u>	<u>Sample Date</u>	<u># Samples Exceeding AL</u>	<u>Exceeds AL</u>	<u>Typical Source</u>
<b>Inorganic Contaminants</b>							
Copper - action level at consumer taps (ppm)	1.3	1.3	0.25	2007	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead - action level at consumer taps (ppb)	0	15	0.15	2007	0	No	Corrosion of household plumbing systems; Erosion of natural deposits

<b>Unit Descriptions</b>	
<u>Term</u>	<u>Definition</u>
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
pCi/L	pCi/L: picocuries per liter (a measure of radioactivity)
NA	NA: not applicable
ND	ND: Not detected
NR	NR: Monitoring not required, but recommended.





<b>Important Drinking Water Definitions</b>	
<b>Term</b>	<b>Definition</b>
<b>MCLG</b>	<b>MCLG: Maximum Contaminant Level Goal:</b> The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
<b>MCL</b>	<b>MCL: Maximum Contaminant Level:</b> The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
<b>TT</b>	<b>TT: Treatment Technique:</b> A required process intended to reduce the level of a contaminant in drinking water.
<b>AL</b>	<b>AL: Action Level:</b> The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
<b>Variances and Exemptions</b>	<b>Variances and Exemptions:</b> State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
<b>MRDLG</b>	<b>MRDLG: Maximum residual disinfection level goal.</b> The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
<b>MRDL</b>	<b>MRDL: Maximum residual disinfectant level.</b> The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
<b>MNR</b>	<b>MNR: Monitored Not Regulated</b>
<b>MPL</b>	<b>MPL: State Assigned Maximum Permissible Level</b>

### Results of voluntary monitoring

The Washington County Department of Water Quality conducts routine testing on your water system that is not included in the Water Quality Table. A list of parameters and their results for 2009 are located in the Table of Results of Customer Interest below.

**TABLE OF RESULTS OF CUSTOMER INTEREST**

PARAMETERS	LEVEL/RANGE DETECTED	UNIT OF MEASUREMENT
pH	7.0 to 8.0	Standard Unit
Chlorine	0.5 to 2.0	ppm
Turbidity	0.1 to 0.3	NTU
Hardness	60 to 103	ppm
Alkalinity	32 to 100	ppm
Manganese	0.00 to .280	ppm
Iron	0.00o 0.280	ppm

A Violation occurred in 2009 due to a delay in the delivery of the Consumer Confidence Report to Maryland Department of the Environment. A copy was provided, but did not reach MDE by the deadline.

For more information on the Washington County Department of Water Quality, please visit our website at [www.washco-md.net/water\\_sewer](http://www.washco-md.net/water_sewer).

**For more information on the Elk Ridge Water System**

**Contact Mr. Kim L. Bowers at (240)-313-2600**

Water Supply Program

JUN 15 2011

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